IN THE SPECIFICATION

Please add the following heading before numbered line 1 at page 1 of the specification:

BACKGROUND OF THE INVENTION

Please add the following heading before numbered line 8 at page 1 of the specification:

1. Field of the Invention

Please add the following heading before numbered line 11 at page 1 of the specification:

2. Description of Related Art

Please add the following heading before numbered line 32 at page 1 of the specification:

BRIEF SUMMARY OF THE INVENTION

Please replace the paragraph starting at page 1, line 32, with the following rewritten paragraph:

The aim of the invention is to provide a method for channel allocation in an ad-hoc radio communication network ~~with~~ using Code Division Multiple Access (CDMA) as the multiple access scheme. The ad-hoc radio communication network is formed as a system including devices gathered together to form several piconets. One of the devices in each of the formed piconets is designated as a piconet coordinator (PNC). The set of available CDMA codes is split into pre-defined disjoined subsets

of CDMA codes (C_1) known by each device. Each new device added to the system scans its radio environment looking for any subset of CDMA codes (C_i) that are presently being used by an associated existing piconet. If the scanning determines that no subset of CDMA codes (C_i) are presently being used by an existing piconet the new device is designated as a piconet coordinator (PNC) of a new piconet and a subset of the CDMA codes (C_i) is selected for use in the new piconet. On the other hand, if the scanning reveals a set of one or more existing piconets are using a corresponding subsets of CDMA codes (C_i), the availability of any of the one or more existing piconets as to adding the new device thereto is determined and the new device is added to an available one of the one or more existing piconets. Thus, the invention includes the method for this channel allocation, the devices that make up the ad-hoc radio communication system that perform this method, and the ad-hoc radio communication system itself.

Please delete the paragraph starting at page 2, line 1 as follows:

~~Accordingly, the subject matter of the invention is a method for channel allocation in an ad-hoc radio communication system, as defined in claim 1.~~

Please replace the paragraph starting at page 1, line 32, with the following rewritten paragraph:

According to ~~particular embodiments, the method comprising the features of one or more sub-claims~~ other aspects of the invention, a broadcast CDMA code (C_i^{bc}) can be defined in each subset of CDMA codes (C_i) for the piconet coordinator (PNC) to broadcast information towards all the devices of the associated piconet and the scanning by each new device is performed by scanning the radio environment looking

for such broadcast CDMA codes (C_i^{bc}). Also, if the new device scanning determines one or more subsets of CDMA codes (C_i) are being used by a set of existing piconets corresponding to each subset of CDMA codes (C_i) being used, the new device determines availability of each of the existing piconets corresponding to each subset of CDMA codes (C_i) being used based on applying an availability criteria thereto. The availability criteria can be based on the load of each associated existing piconet and if none of the existing piconets corresponding to each subset of CDMA codes (C_i) being used is determined to meet the availability criteria, the new device can be designated as a piconet coordinator (PNC) of a new piconet and a not yet used subset of CDMA codes (C_i) can be selected for the new piconet. On the other hand, if only a single piconet corresponding to each subset of CDMA codes (C_i) being used is determined to meet the availability criteria, the new device is added to the single single piconet and uses the subset of CDMA codes (C_i) of said single piconet for the next communications. If more than one existing piconet corresponding to each subset of CDMA codes (C_i) being used is determined to meet the availability criteria, the more than one existing piconet corresponding to each subset of CDMA codes (C_i) being used are ordered into a set of ordered available piconets according to a predetermined criteria (that can be radio quality) and the new device is added to the first available piconet in the set of ordered available piconets. This new device joining an available piconet sends a request for attachment to the piconet coordinator (PNC) of the available piconet that responds thereto by sending the new device requesting attachment an indication (a pointer of 8 bits as defined in 802.15.3 standard, for example) of a CDMA reception code (C_i^j) among the subset of codes (C_i) associated with the available piconet to the new device to be used for reception of data. After the new device has joined ~~a~~ an available piconet, the piconet coordinator

(PNC) of the available piconet sends an identification of the new device together with an indication of the reception code (C_i^j) to be used for reception by the new device to all the devices of the existing piconet. When a given device sends data with a given reception CDMA code (C_i^j) to an expected receiving device in the same piconet, the given device also sends attributes relating to the expected receiving device and the device having the given reception CDMA code (C_i^j) processes the sent data only if the attributes relate to it.

Please add the following heading before numbered line 6 at page 2 of the specification:

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

The invention will be better understood on reading the description which follows, given merely by way of example and while referring to the drawings in which:

-figure 1 is a schematic view of an ad-hoc radio communication system according to the invention;

-figure 2 is a table stored in each device of the ad-hoc radio communication system;

-figure 3 is a flow chart explaining the method for channel allocation for a new device in an ad-hoc radio communication system according to the invention; and

-figure 4 is a chart explaining the messages sent between devices of a piconet when a new device joins an existing piconet.

Please add the following heading before numbered line 19 at page 2 of the specification:

DETAILED DESCRIPTION OF THE INVENTION

Figure 1 shows an ad-hoc radio communication system which is assumed to be based on IEEE 802.15.3 standard, except for the additional features which are provided by the invention.